

524-300
DATE OF ISSUANCE
April 5, 1974

NOTICE OF REGISTRATION

(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

NAME OF PESTICIDE PRODUCT

ROUNDUP

NAME AND ADDRESS OF REGISTRANT

Monsanto Company
Attention: Robert A. Conkin
800 North Lindbergh Blvd.
St. Louis, Missouri 63166

NOTE: Changes in labeling or formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of the information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this registration is returned herewith.

Registration is in no way to be construed as an endorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

The following paragraphs are applicable only when checked:

- ☐ The registration for this product is being issued with the understanding that certain defects in the labeling which are noted below will be corrected as soon as possible. Objection is not raised to the use of the present labeling for a reasonable period of time while fully corrected labeling is being prepared. Three copies of the corrected labeling must be submitted.

☐

Richard F. Mountfort
Section Head
Fungicide-Herbicide Branch

CC
PED
C. L. Smith

T.A.

☐ Attachment is applicable

SIGNATURE OF APPROVING OFFICIAL

DATE
April 5, 1974

Data sent to

JSD

5/6/74

Registration Division

MAR 13 1974

Monsanto Commercial Products Company
Attention: Mr. L. H. Hannah
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166

Gentlemen:

Subject: ROUNDUP
File Symbol No. 524-GNI
Labels of November 5, 1973

The product referred to above will be acceptable for registration under the Federal Insecticide, Fungicide, and Rodenticide Act; provided, finished labeling is submitted incorporating the following revisions.

1. Under "Note", add the statement, "Do not contaminate water by disposal of wastes or cleaning of equipment."

2. Change the signal word to "DANGER." This signal word, without skull and crossbones, is required when data indicate that 100 mg or 0.1 ml of undiluted product, tested in rabbit eyes with or without washing, is corrosive or causes corneal opacity to the extent that damage is not completely reversible within seven days. Since you have stated that the observed effects on the eye were possibly due "at least in part, to a secondary infection," you may wish to repeat this study and submit the results for evaluation at a later date.

"EPA Reg. No. 524-308" is being reserved for this product. This must appear on the finished label. The "Notice of Registration" will be issued when five (5) copies of the acceptable finished (printed) labeling are submitted. Finished labeling is that which will be attached to or accompany the product. Refer to the attached A-79 Enclosure.

To expedite handling, please return the enclosed duplicate copy of this letter with your finished labeling.

This letter does not constitute registration, and the product may not be lawfully marketed in interstate commerce until it is registered.

Sincerely,

Charles L. Smith
Acting Assistant Director



Enclosures

EPA:RD:RX:PCCrithlow:lms 3/13/74

cc: Coor. Br.
CB, TB, Chron



EP4-PR

3-22-74

Monsanto

AGRICULTURAL DIVISION

MONSANTO COMMERCIAL PRODUCTS CO.
800 N. Lindbergh Boulevard
St. Louis, Missouri 63166
Phone: (314) 694-1000

March 21, 1974

Director
Registration Division (HM-567)
Office of Pesticide Programs
Environmental Protection Agency
Washington, D.C. 20460

REFERENCE: ROUNDUP - File Symbol No. 524-CNI
"EPA Reg. No. 524-308"
(EPA Ltr., 3/18/74, attached)

Dear Sir:

In order for the product referred to above to be acceptable for registration under the Federal Insecticide, Fungicide, and Rodenticide Act, the label has been revised by incorporating the following revisions as requested in the attached reference letter:

1. Under "Note", add the statement, "Do not contaminate water by disposal of wastes or cleaning of equipment."

The addition has been made to the enclosed copies of the finished label.

2. Change the signal word to "DANGER".

This change has been made to the enclosed copies of the finished label. Appropriate additional changes were made in the warning statement that follows.

We have added an additional statement immediately under "General Information" reading, "DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT".

To expedite handling of this registration request, a copy of the reference letter has been attached to the five copies of the finished labels enclosed herein.

HANDCARRIED
3-22-1974
J.A.F.

/mhz

Enclosures:

Sincerely,

Robert A. Conkin

Robert A. Conkin
Manager of Registration

cc: J. D. Early
Monsanto-Washington, unit of Monsanto Company

EPA PA
7-22-74

MINIATURE FACSIMILE
Smallest Type size on package 12 point.

THIS SIDE UP
↑
HANDLE WITH CARE



POSTEMERGENCE HERBICIDE BY **Monsanto**

Postemergence herbicide for industrial and non-crop uses to control or destroy many annual and perennial grasses and broadleafed weeds.

AVOID CONTACT WITH DESIRABLE PLANTS AND TREES SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

DANGER! Keep out of reach of children.

Use only according to label instructions.
Read "LIMIT OF WARRANTY AND LIABILITY" before buying or using. If terms are not acceptable, return at once unopened.

ACTIVE INGREDIENT:

*Isopropylamine salt of Glyphosate 41.0%
INERT INGREDIENTS: 59.0%

100.0%
*Contains 480 grams per liter or 4 pounds of the active ingredient isopropylamine salt of N-(phosphonomethyl) glycine per U.S. gallon.

READ PRECAUTIONS ON BACK OF CAN.

STORE ABOVE 10° F. TO KEEP FROM FREEZING. Freezing will result in crystals which settle to the bottom of the can. If allowed to freeze, place in a warm room (72° F.) and roll and shake the can frequently for several days to redissolve.



In case of an emergency involving this product, Call Collect, day or night, (314) 694-1000.

EPA Reg. No. 524-308

NET 5 U.S. GAL.

MONSANTO COMPANY AGRICULTURAL DIVISION ST. LOUIS, MISSOURI 63166, U.S.A. EPA Est. 524-MO-1

THIS SIDE UP
↑
HANDLE WITH CARE

Keep out of reach of children.

DANGER!

CAUSES EYE BURNS AND SKIN IRRITATION.
HARMFUL IF SWALLOWED.

Avoid contact with eyes, skin or clothing.

Wear goggles or face shield when handling.

FIRST AID: IN CASE OF CONTACT, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician. In case of skin contact, flush skin with water.

Avoid contamination of seed, feed and food stuffs.

LIMIT OF WARRANTY AND LIABILITY

Monsanto Company warrants that this material conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the directions for use. This product is sold subject to the understanding that the buyer assumes all risks of use or handling which may result in loss or damage which are beyond the control of the seller, such as for example incompatibility with other products the manner of its use or application, or the presence of other products or materials in or on the soil or plant. MONSANTO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY. The exclusive remedy of the user or buyer, and the limit of the liability of Monsanto Company or any other seller for any and all losses, injuries or damages resulting from the use or handling of this product shall be the purchase price paid by the user or buyer for the quantity of this product involved. The buyer and all users are deemed to have accepted the terms of this notice which may not be varied by any verbal or written agreement.

GENERAL INFORMATION

DO NOT APPLY THIS PRODUCT USING AERIAL SPRAY EQUIPMENT.

Roundup, a water soluble liquid, mixes readily with water to be applied as a foliage spray for the control or destruction of many herbaceous plants. It may be applied through standard industrial or field type sprayers after dilution and thorough mixing with water in accordance with label instructions.

Roundup is translocated from the point of foliage contact to and throughout the root system. Visible effects of most annual weeds occur within 2 to 4 days but on most perennial weeds may not occur until 7 to 10 days. Visible effects are a gradual wilting and yellowing of the plant which advances to complete browning and deterioration of plant tissue.

Rainfall occurring up to 6 hours after application may reduce effectiveness. Heavy rainfall within 2 hours after application may wash the chemical off of the foliage and a repeat treatment may be required.

DO NOT ADD ADDITIONAL SURFACTANT since this formulation contains sufficient wetting agents for the purposes described.

Do not mix with any herbicides, pesticides, herbicides or any other materials.

Delay application until vegetation has emerged to the stages described for control of such vegetation under the "Weeds Controlled" Section of this label to afford adequate leaf surface to receive the spray. Unemerged leaf tissue arising from underground rhizomes or root stocks of perennials will not be affected by the spray and will continue to grow. For this reason best control of most perennial species is obtained when treatment is made at late stages approaching maturity.

For best results do not use more than 30 gallons of spray solution per acre. Do not spray weed foliage to the point of runoff.

ATTENTION

AVOID DRIFT. Extreme care must be used when applying this product to prevent injuring desirable

plants and crops. Do not allow spray mist to drift since even minute quantities of spray can cause severe damage or destruction to nearby crops, plants or other areas on which treatment is not intended, or may cause other unintended consequences. Do not apply when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in fine particles (mist) which are more likely to drift.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

Clean sprayer and parts immediately after using this product by thoroughly flushing with water. Do not contaminate water by disposal of wastes or cleaning of equipment.

Do not reuse container. Destroy when empty. Do not use this product with galvanized (zinc coated) spray equipment.

MIXING AND APPLICATION INSTRUCTIONS

This herbicide mixes readily with water. For ground or industrial type sprayers fill the spray tank with one half the required amount of water. Add the proper amount of herbicide (See Directions for Use) and mix well before filling the remaining portion of water. Place the filling hose below the surface of the liquid solution to prevent excessive foaming. Remove hose from tank immediately to avoid back siphoning into water source. Do not use mechanical agitators.

For use in knapsack type sprayers, it is suggested that the proper amount be mixed with water in a larger container. Fill sprayer from the tank or container of stock solution.

Apply in properly maintained and calibrated equipment capable of delivering desired rates of solution or volume per acre. For ground and industrial spray-

ers (railroad, trucks, etc.) use nozzles designed to apply the appropriate rate of solution per acre at spray pressure not exceeding 40 pounds per square inch (PSI). Do not apply under wind or other conditions which will allow drift to occur. High pressure hand gun applications should be properly directed to avoid spraying desirable vegetation.

By-pass lines should terminate at the bottom of the tank to minimize foaming. For fixed-boom power equipment, use 50 mesh nozzle and line screens.

WEEDS CONTROLLED

Roundup controls many annual and perennial grasses and broadleaf weeds. A partial list of ANNUAL WEEDS includes:

Annual Bluegrass	Kochia
Poa annua	Kochia scoparis
Common Lambsquarters	Pennsylvania Smartweed
Chenopodium album	Polygonum pennsylvanicum
Common Ragweed	Prickly Lettuce
Ambrosia artemisiifolia	Lactuca scariola
Crabgrass	Redroot Pigweed
Digitaria spp.	Amaranthus retroflexus
Downybrome	Russian Thistle
Bromus tectorum	Salsola kali
Panicum	Smooth Pigweed
Panicum spp.	Amaranthus hybridus
Field Sandbur	Shattercane
Cenchrus Paniciflorus	Sorghum bicolor
Fleabane	Velvetleaf
Erigeron spp.	Auburn theophrasti
Foxtail	Wheat
Setaria spp.	Triticum aestivum
Giant Ragweed	
Ambrosia trifida	

Annual weeds generally will continue to germinate from seed throughout the growing season. In some cases, repeat treatments may be necessary to more completely control later germinating species. Best control is obtained if weed or grass growth is treated before seed heads emerge.

A partial list of PERENNIAL WEEDS includes:

Bermudagrass	Johnsongrass
Cynodon dactylon	Sorghum halepense
Kentucky Bluegrass	Hemp Dogbane
Poa spp.	Apocynum cannabinum
Canada Thistle	Milkweed
Cirsium arvense	Asclepias spp.
Common Mullein	Paragrass
Verbascum thapsus	Bracharia mutica
Curly Dock	Hawaii
Rumex crispus	Quackgrass
Dallisgrass	Agropyron repens
Paspalum dilatatum	Swamp Smartweed
Fescues	Polygonum coccineum
Festuca spp.	Vaseygrass
Field Bindweed	Paspalum urvillei
Convolvulus arvensis	

Perennial weeds, particularly persistent and deep rooted species, such as bermudagrass, Canada thistle, field bindweed, hemp dogbane and others may require repeat treatments for best control. If possible, allow the species to approach early bud stage, late boot, full bloom or early seed head stage of maturity before treatment. Otherwise, permit sufficient growth before treatment to assume maximum coverage to emerging vegetation. If area to be sprayed has been mowed or clipped allow regrowth to be 8 to 10 inches high before treating.

DIRECTIONS FOR USE

INDUSTRIAL AND NON-AGRICULTURAL USES
To control annual and perennial weeds on this label on non-crop areas such as railroad, pipeline, highway, power and telephone rights-of-way, petroleum tank farms and pumping installations, roadsides, storage areas, lumberyards, fence rows, industrial plant sites, parking areas, airports and similar industrial or non-crop areas.

For control of Annual Grasses and Broadleaf Weeds listed on this label—Use 1 to 1½ quarts in 20 to 30 gallons of water per acre as a broadcast spray.

For control of Perennial Grasses and Broadleaf Weeds listed on this label—Use 2 to 4 quarts in 20 to 30 gallons of water per acre as a broadcast spray.

Repeat treatments of 1½ to 2 quarts per acre may be necessary periodically throughout the growing season to control any regeneration.

HOME AND FARMSTEAD WEED CONTROL

To control undesirable vegetation listed on this label around building foundations, along and in sidewalks, fences, shelterbelts, and driveways, around swimming pools, tennis courts, and general non-selective weed control apply Roundup to actively growing vegetation with a suitable sprayer. Use 2 ounces (4 tablespoons) per gallon of water per 1,000 square feet for control of bluegrass, crabgrass, foxtails, lambsquarters, pigweeds, ragweed, and other annuals listed on this label.

For harder-to-control perennials such as bermudagrass, dock, quackgrass, johnsongrass and Canada thistle use 3 ounces (6 tablespoons) per gallon of water per 1,000 square feet.

NOTE: If spraying to areas adjacent to desirable plants, use a shield made of cardboard, sheet metal or plywood while spraying to help prevent spray coming into contact with foliage.

NON-BEARING DECIDUOUS FRUITS

Apples and cherries. DO NOT APPLY TO TREES THAT WILL BEAR FRUIT WITHIN ONE YEAR AFTER APPLICATION.

For control of annual grasses and broadleaf weeds listed on this label in or around non-bearing apple and cherry trees, use 1½ to 2½ quarts in 20 to 30 gallons of water per acre and apply as a directed spray toward the base of the tree. For control of perennial grasses and broadleaf weeds listed on this label, use 2 to 4 quarts in 20 to 30 gallons of water per acre, as a direct spray. Spray may come into contact with brown bark area of the trunk without injury. AVOID SPRAYING GREEN BARK. Do not allow spray or spray drift to contact foliage of the tree since severe damage or destruction may occur. Repeat treatments using 1½ to 2½ quarts in 20 to 30 gallons of water per acre may be required periodically throughout the growing season to control perennial regeneration and newly sprouted weeds.

ACCEPTED
April 5, 1974
UNDER THE FEDERAL INSECTICIDE
FUNGICIDE AND RODENTICIDE ACT
FOR ECONOMIC POISON REGISTERED
ED UNDER NO. 624308